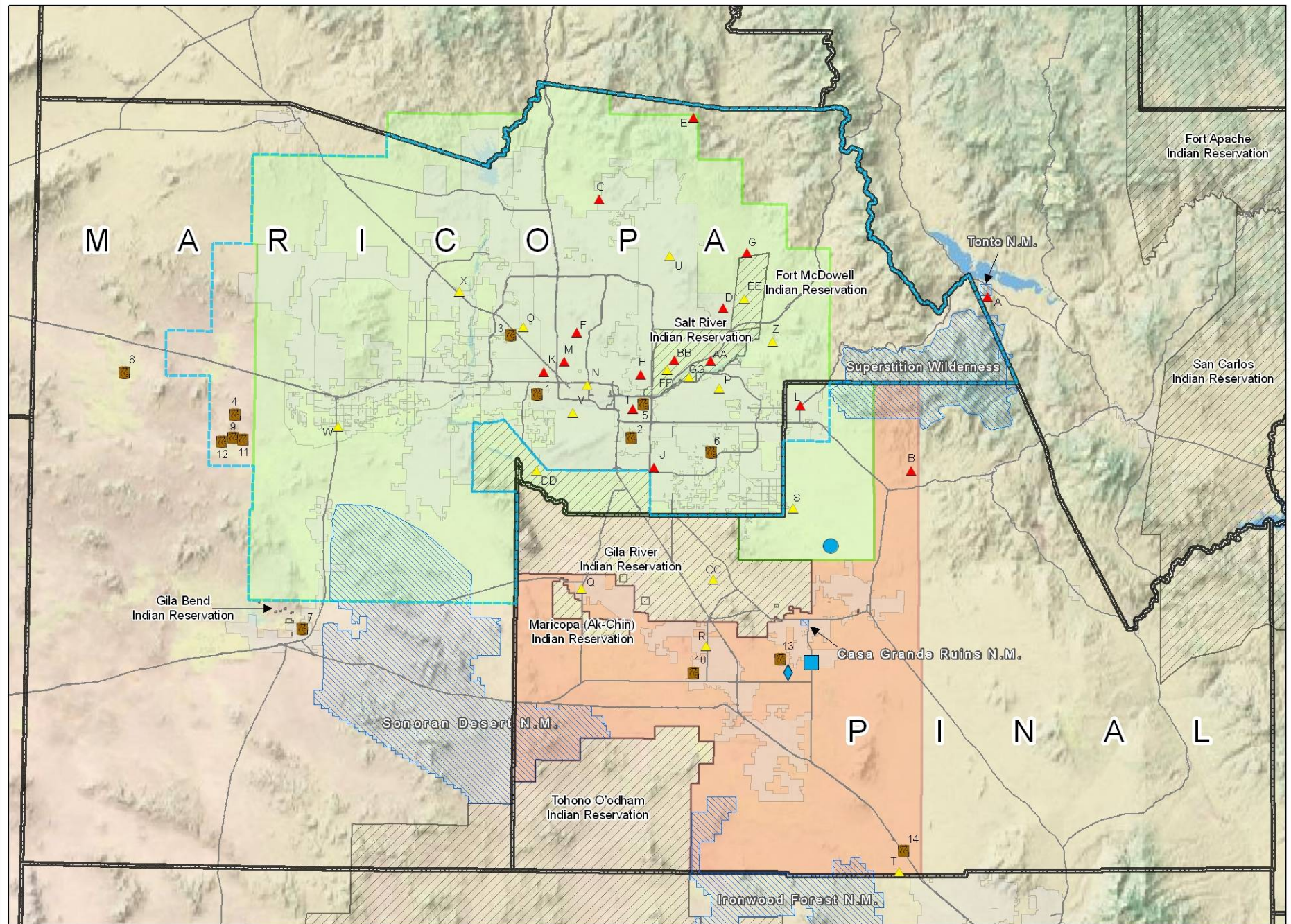




*State Area
Designations Under the
Revised 8-hour
Average Ozone
Standard*

Major Features Related to 8-Hour Ozone Designation





Default Nonattainment Area

- Core-Based Statistical Area (CBSA), formerly known as Metropolitan Statistical Area
- CBSA boundaries are not the presumptive boundaries
- Guidance requires states to justify boundaries, regardless based on 9 factors

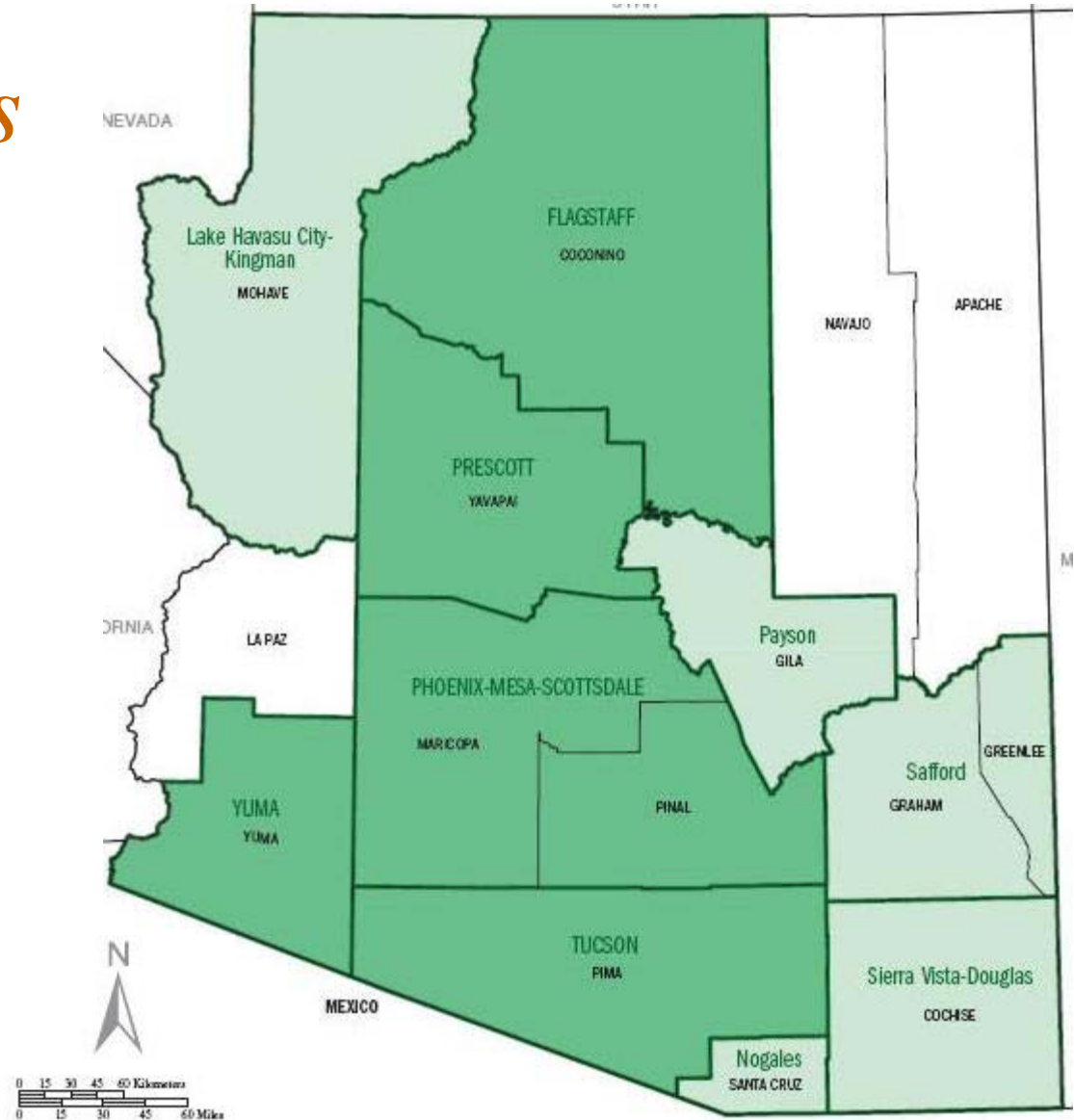


Arizona CBSA's

LEGEND
RICHMOND Metropolitan Statistical Area
Concord Micropolitan Statistical Area
MEXICO International
TEXAS State
HARRIS County

CBSA boundaries and names are as of November 2004. All other boundaries and names are as of January 1, 2002.

Source: U.S. Department of
Commerce Economics and
Statistics Administration, U.S.
Census Bureau



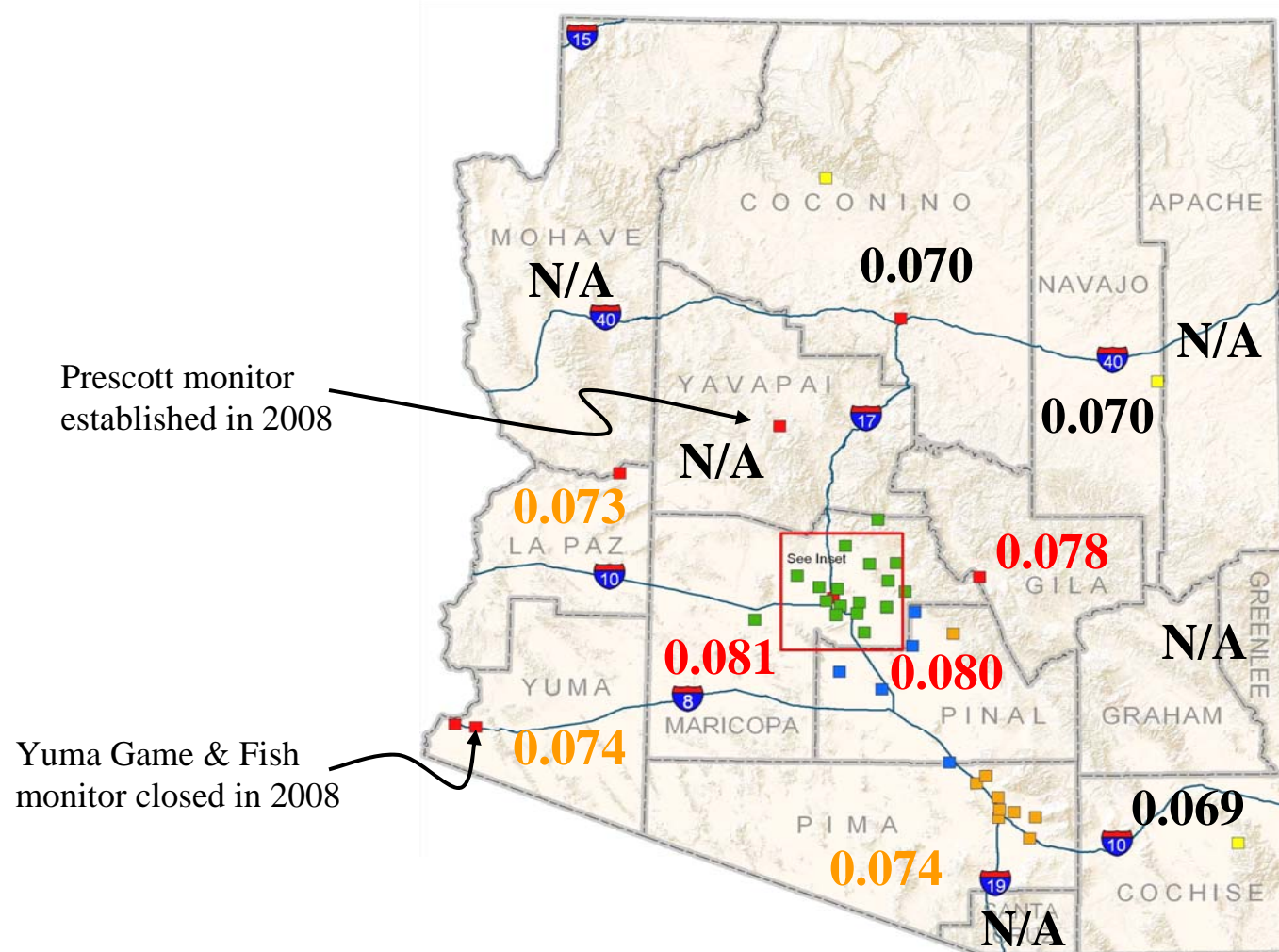


The Nine Factors

- ✿ Air quality data
- ✿ Emission sources, locations & contribution to O₃
- ✿ Population density and degree of urbanization
- ✿ Traffic and commuting patterns
- ✿ Growth rates and patterns
- ✿ Meteorology
- ✿ Geography/topography
- ✿ Jurisdictional boundaries
- ✿ Level of control of emission sources

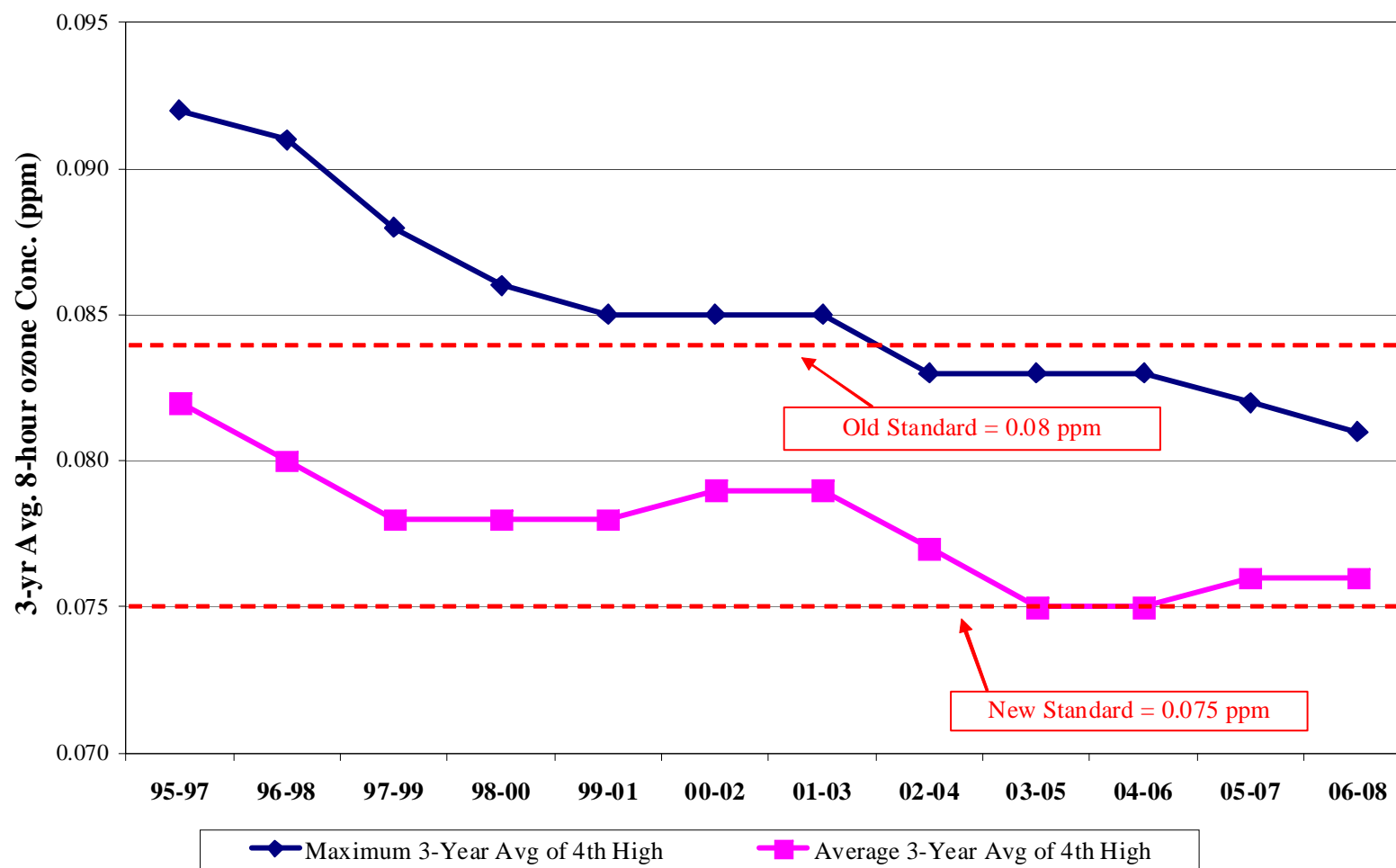


Ozone Design Values for 2006 - 2008



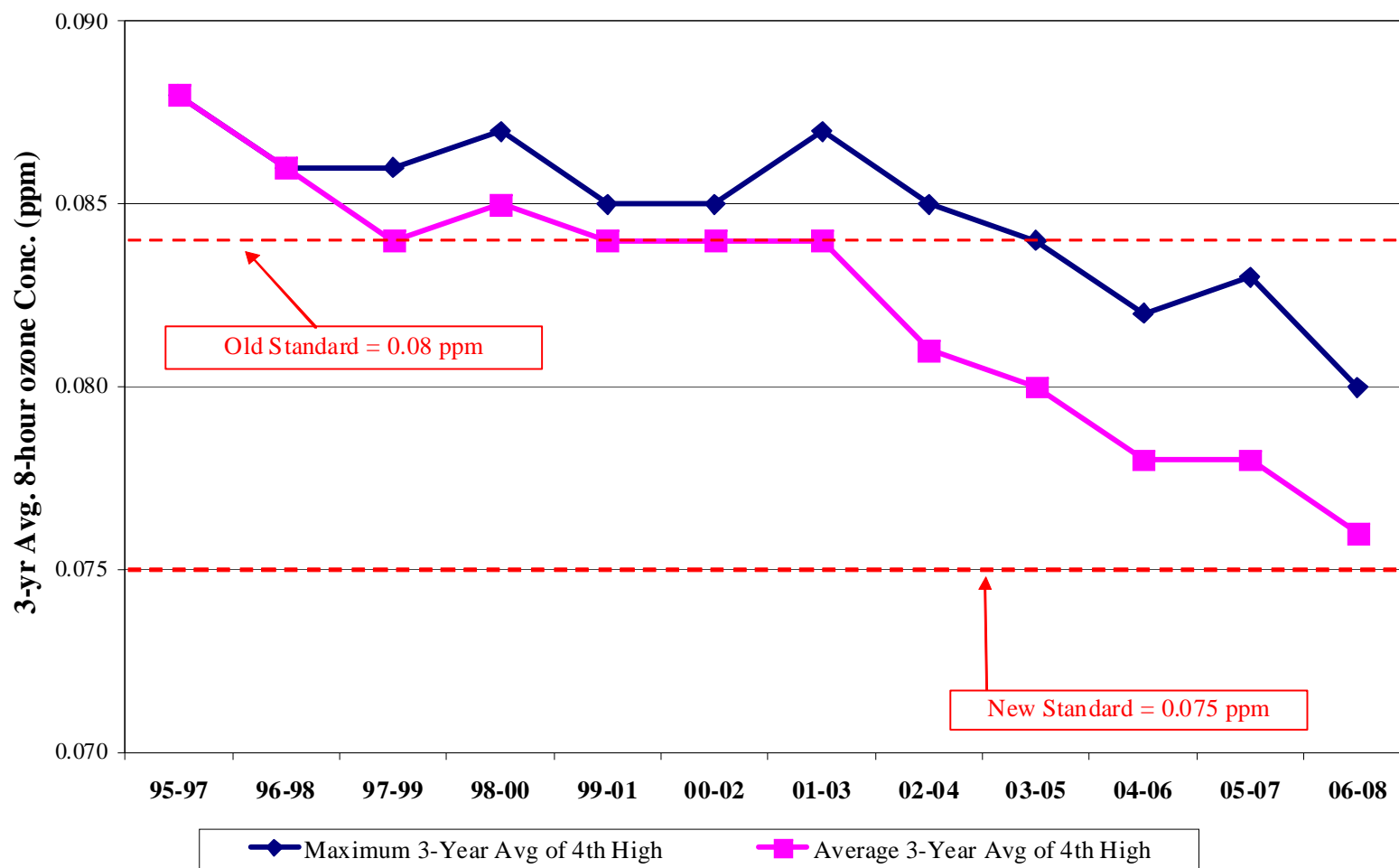


Ozone Trends at Phoenix Monitors - Central Area Average





Ozone Trends at Phoenix Monitors - East Area Average





Anthropogenic VOC Emissions

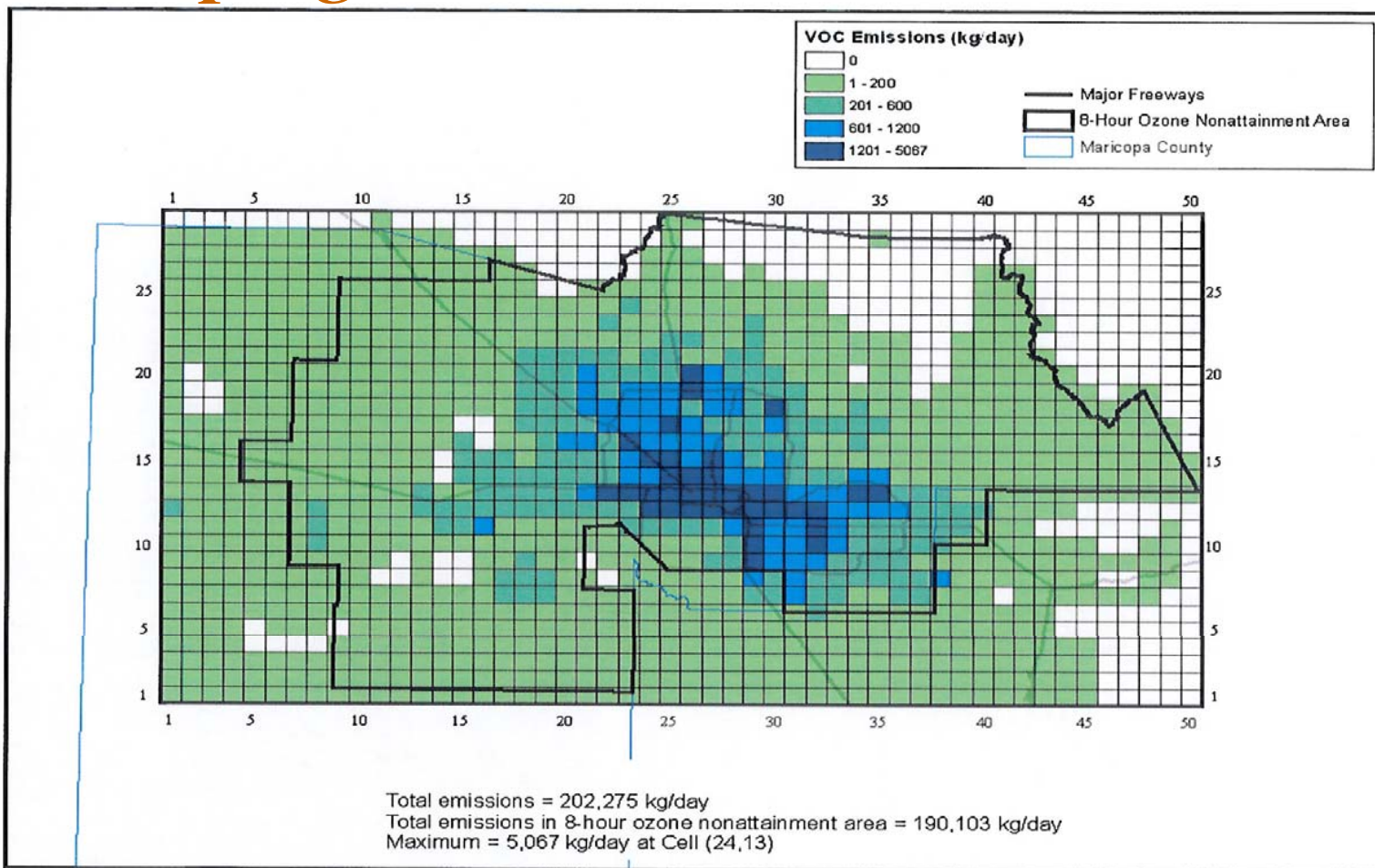


Figure IV-3(c). Anthropogenic VOC emissions for a Tuesday in July, 2005



Anthropogenic NO_x Emissions

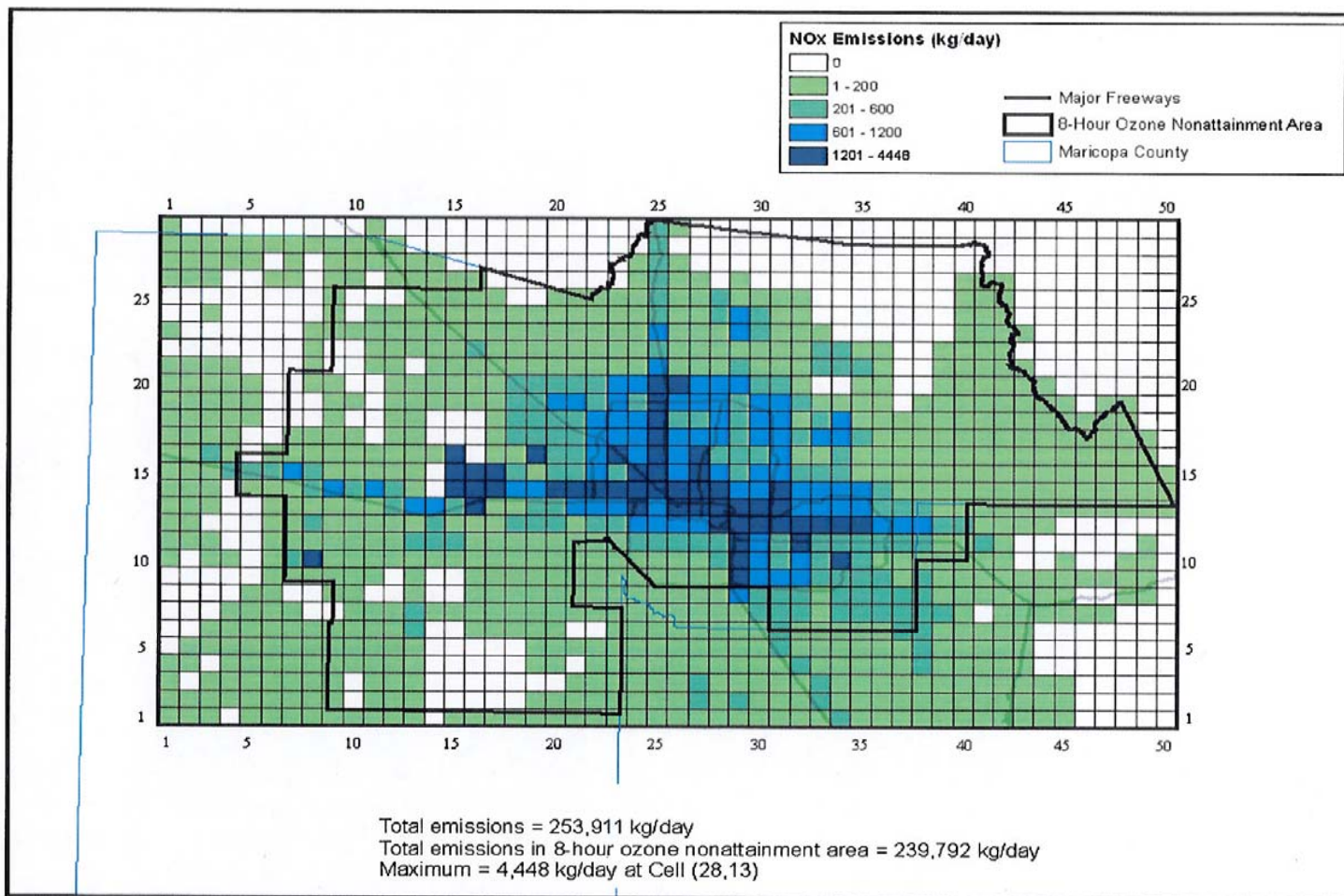
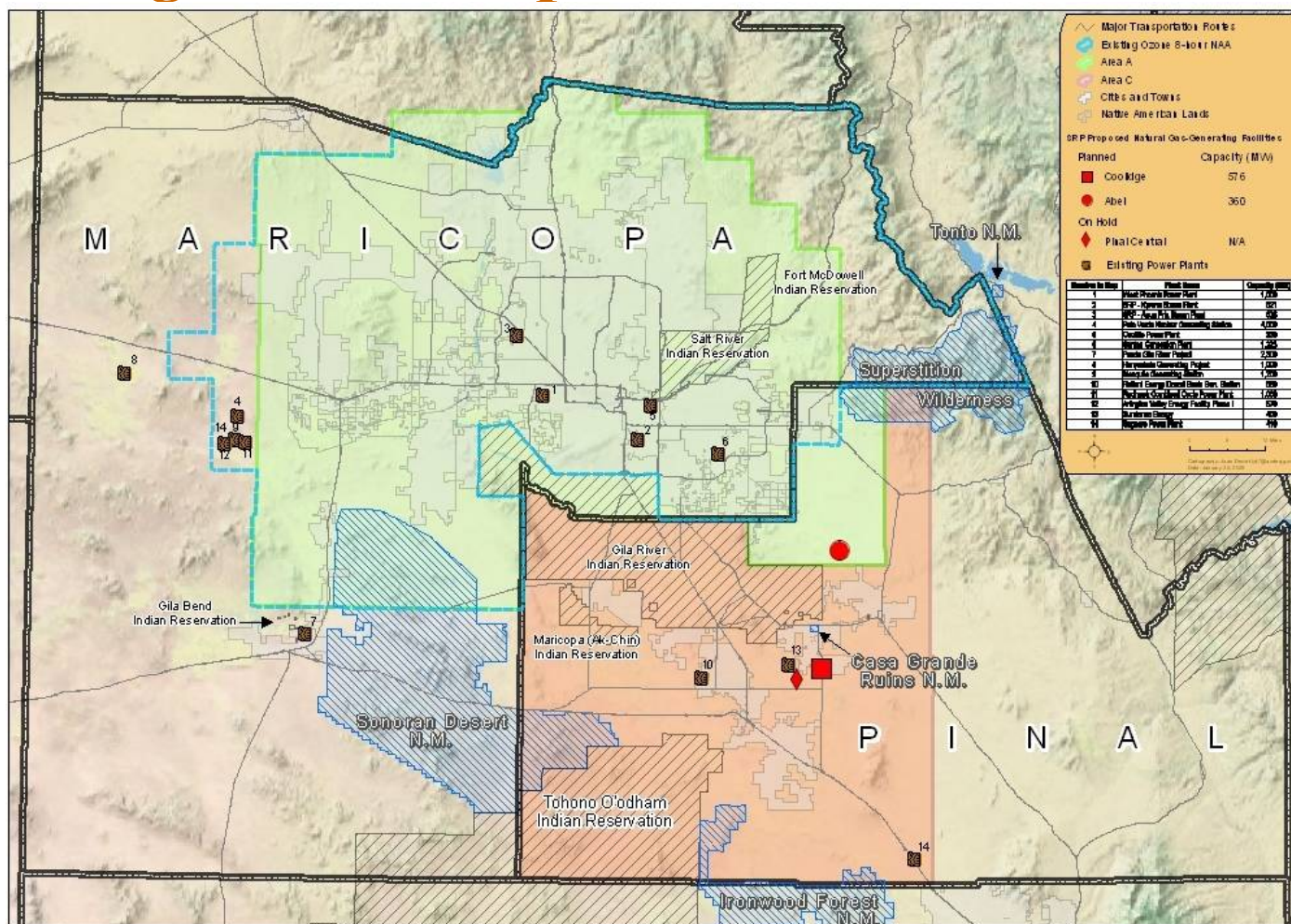


Figure IV-3(d). Anthropogenic NO_x emissions for a Tuesday in July, 2005



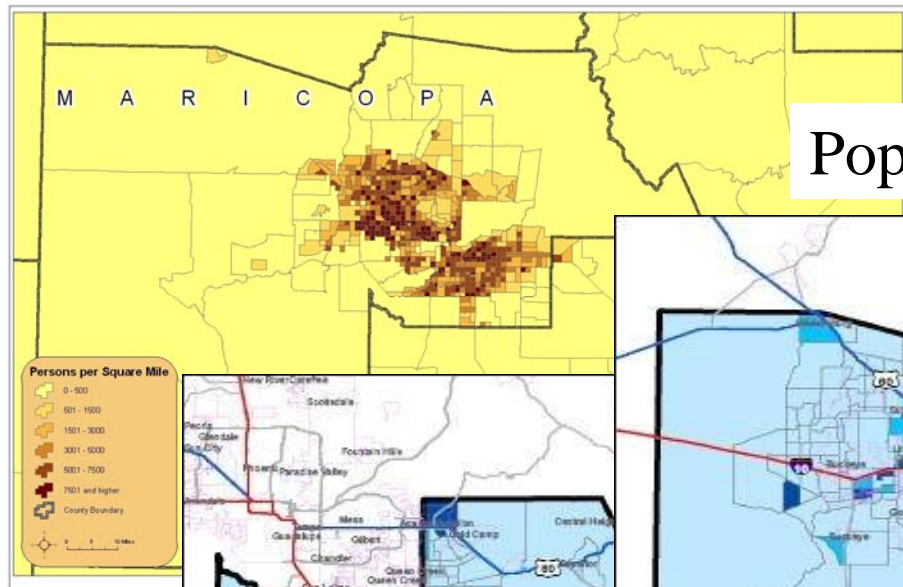
Existing and Proposed Power Plants



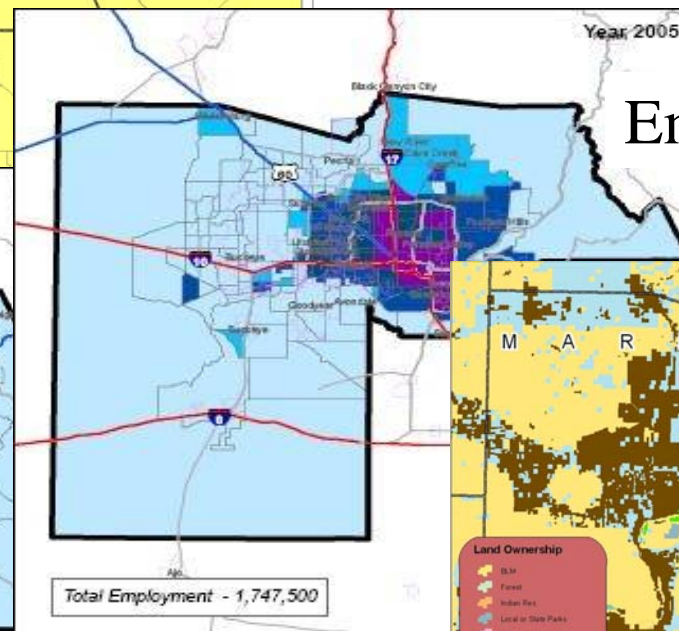


Population Density and Urbanization *Primarily from MAG* *and ADOT reports*

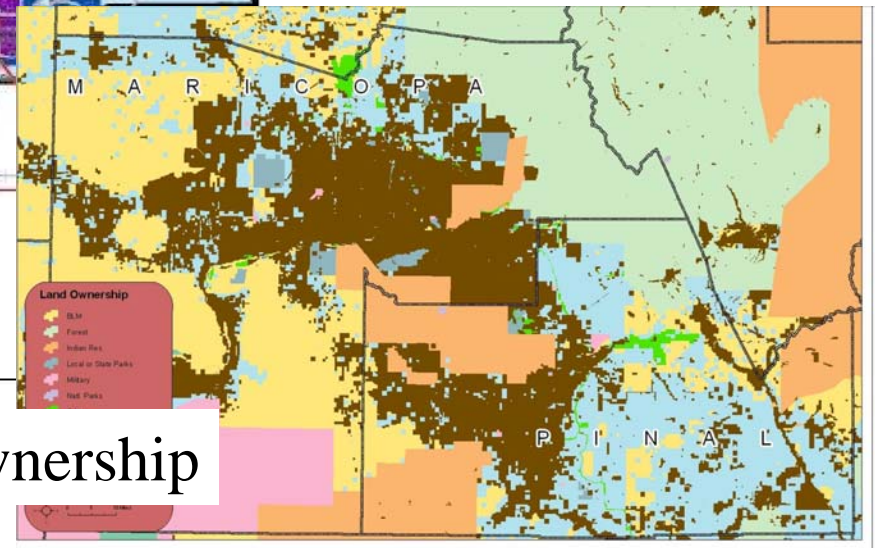
Population density



Employment

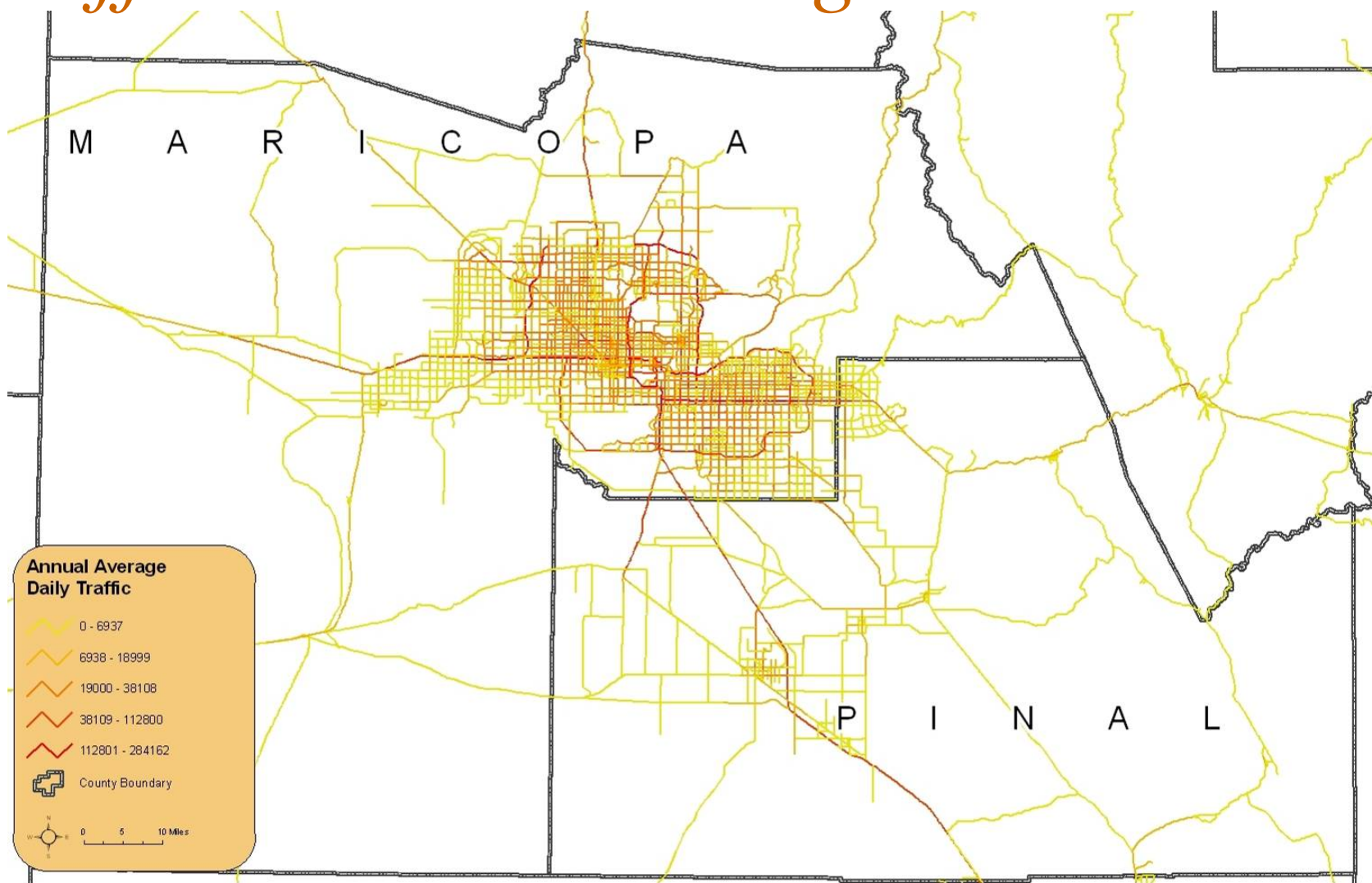


Land ownership



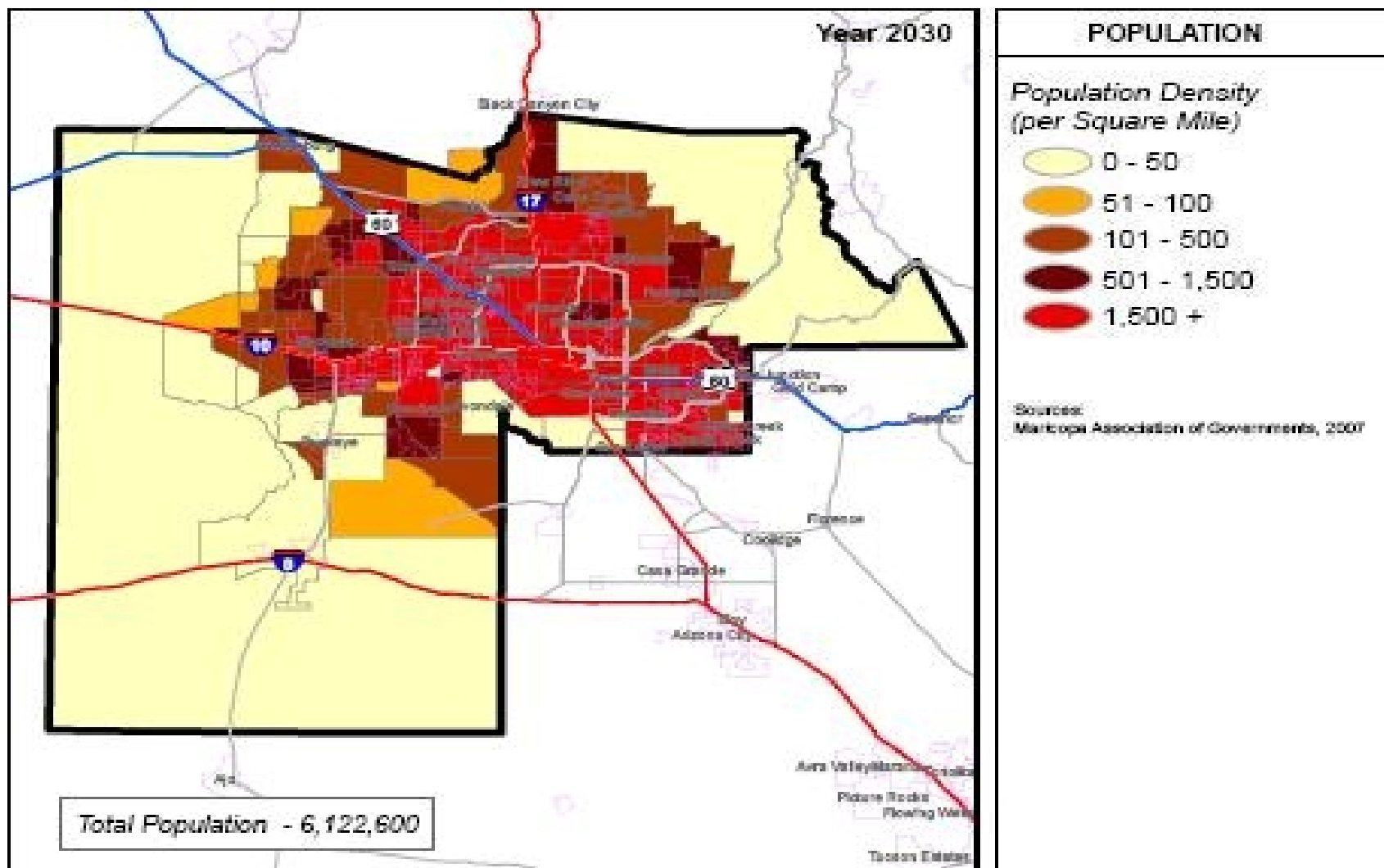


Traffic and Commuting Patterns



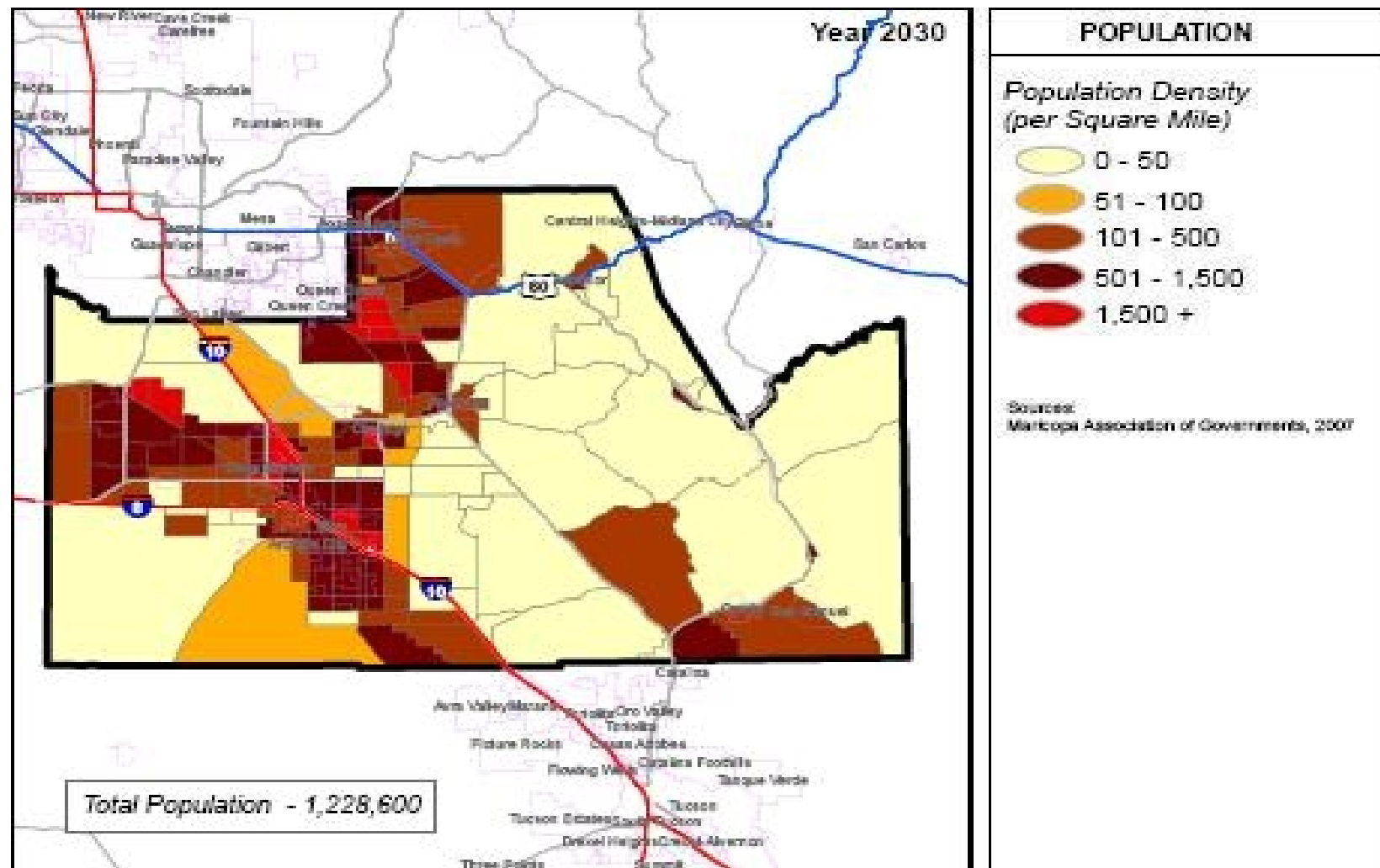


Growth Rates and Patterns



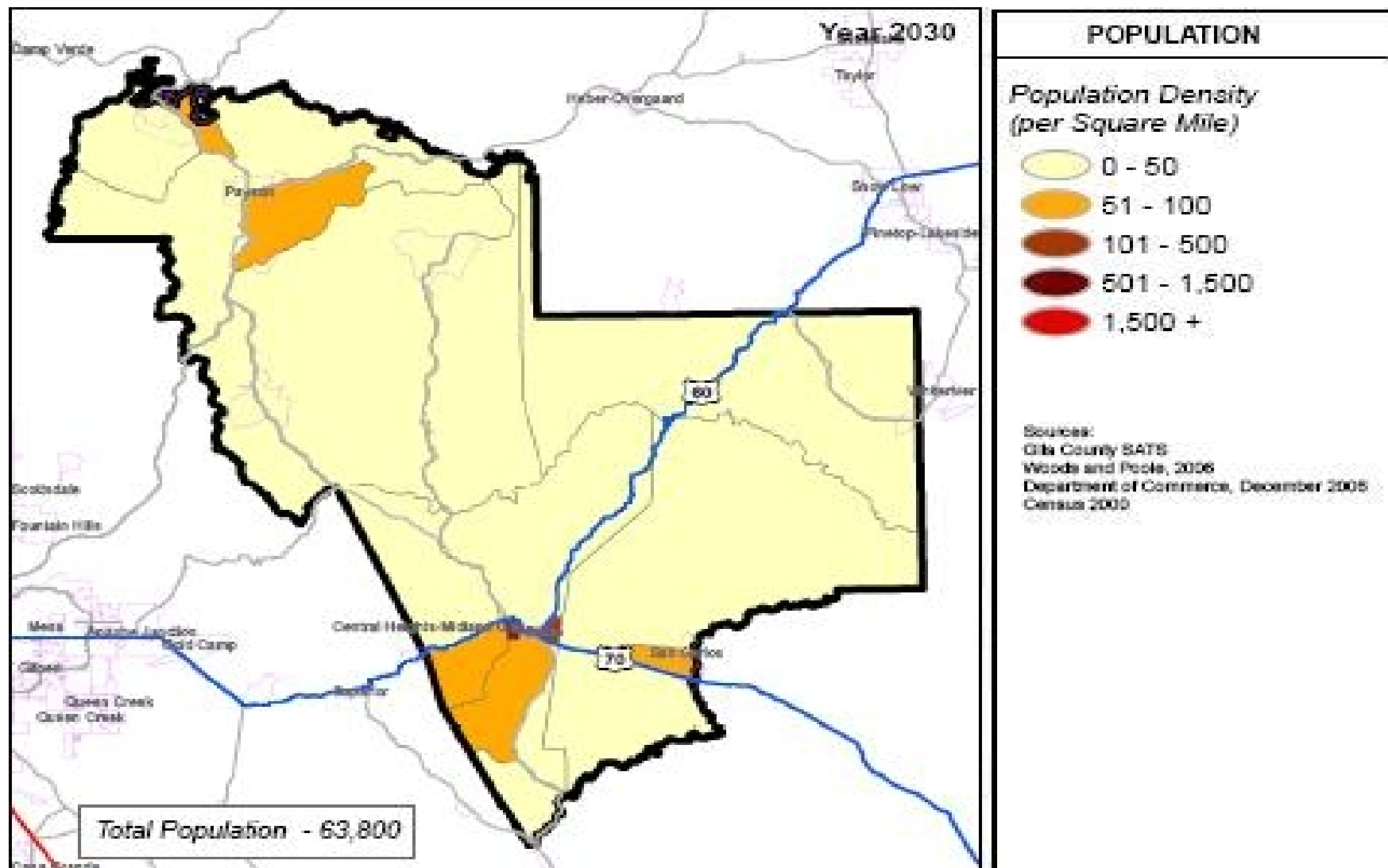


Growth Rates and Patterns





Growth Rates and Patterns





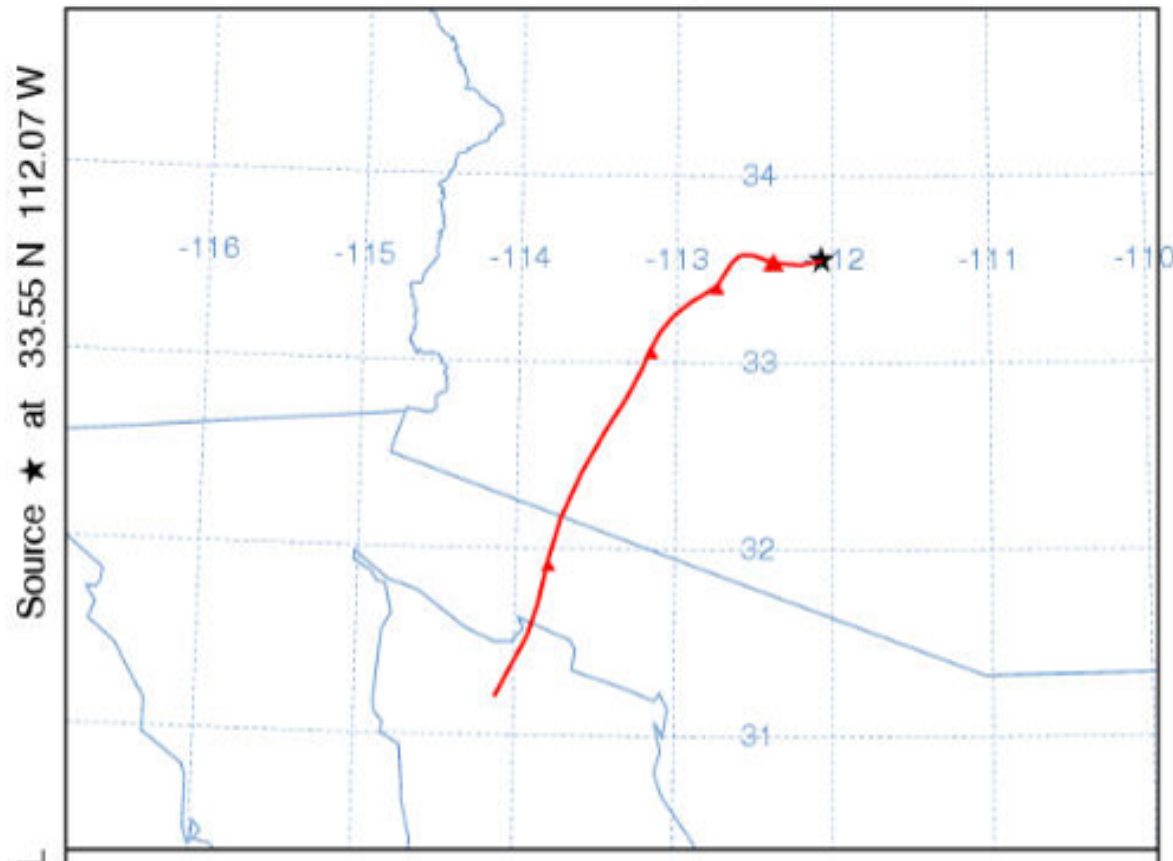
Meteorology and Topography

- ✿ Ozone formation process
- ✿ Mountain-valley diurnal wind pattern
- ✿ Spring and fall regime
- ✿ Monsoon regime
- ✿ Air movement on days with ozone exceedances – surface and mid-level (500 m) winds



July 1, 2006 Exceedance

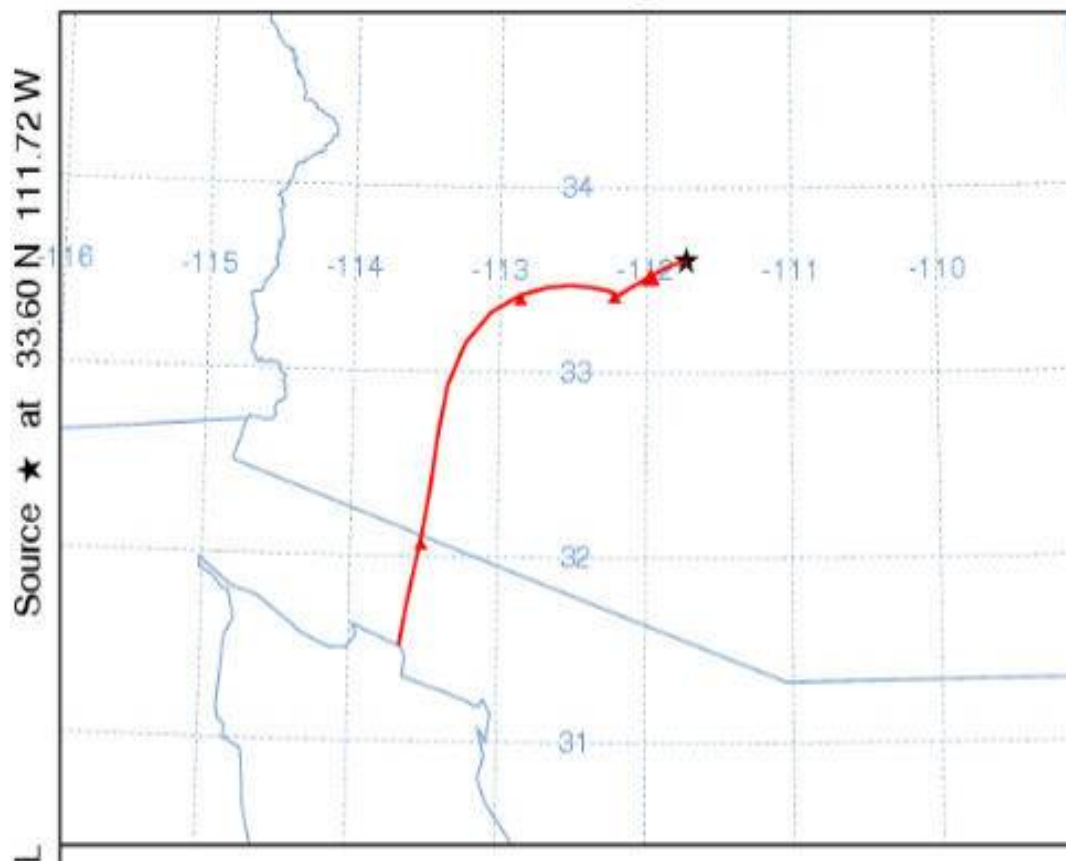
NOAA HYSPLIT MODEL
Backward trajectory ending at 0200 UTC 02 Jul 06
EDAS Meteorological Data





July 17, 2006 Exceedance

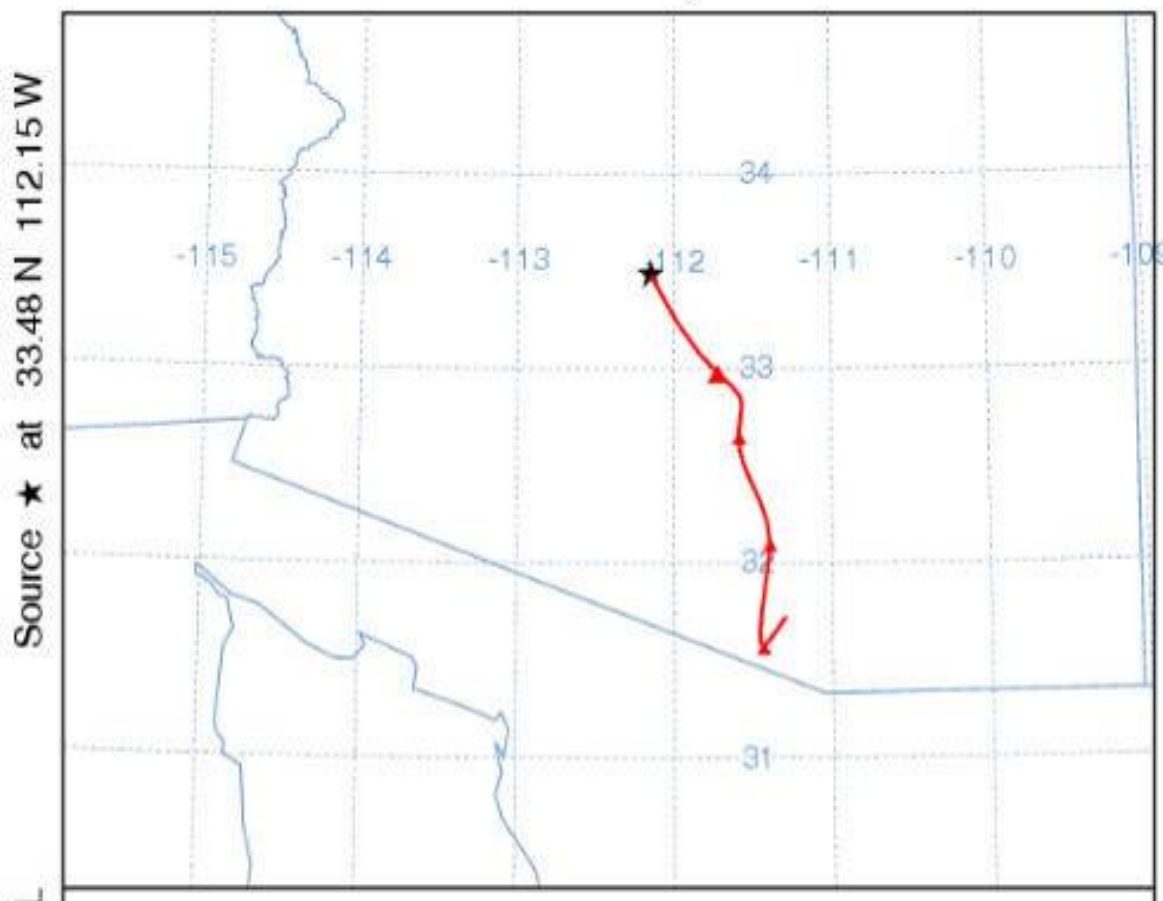
NOAA HYSPLIT MODEL
Backward trajectory ending at 0300 UTC 18 Jul 06
EDAS Meteorological Data



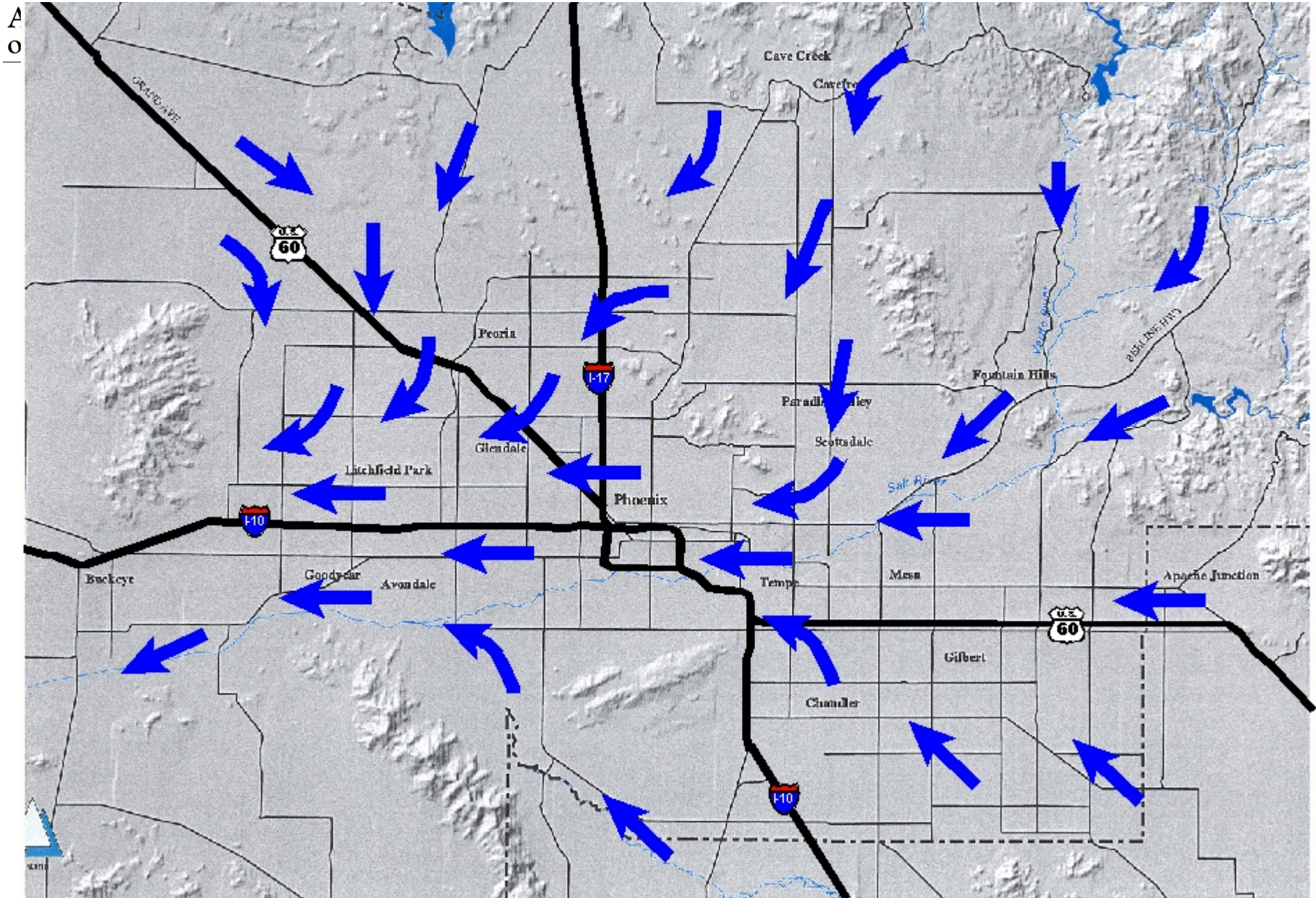


July 8, 2008 Exceedance

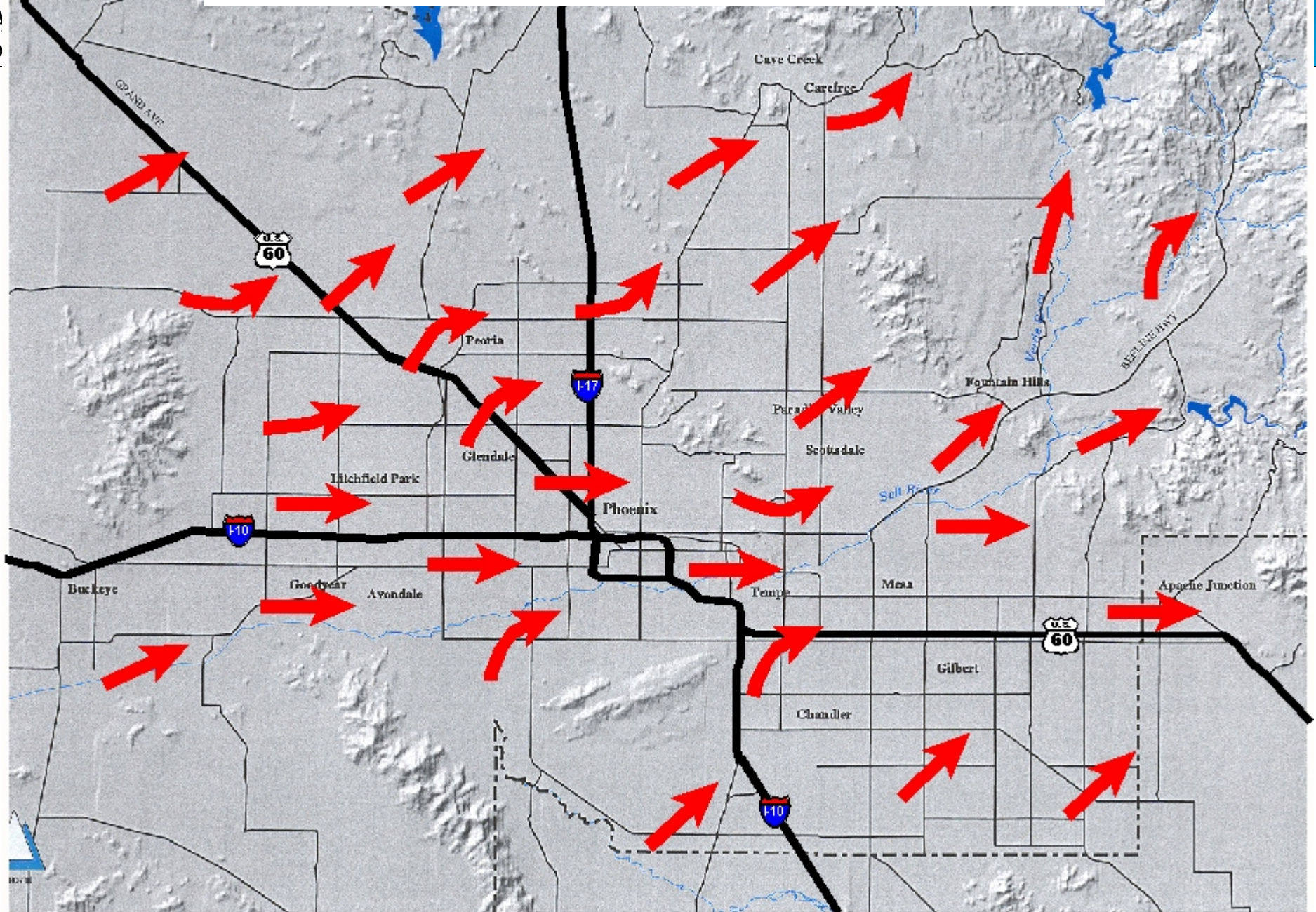
NOAA HYSPLIT MODEL
Backward trajectory ending at 0300 UTC 09 Jul 08
EDAS Meteorological Data



General Late Night/Early Morning Wind Patterns



General Afternoon Wind Patterns





Jurisdictional Boundaries

- Counties and county air quality programs
- MAG and CAAG
- Indian Country – no “doughnut holes”
 - Ak Chin Indian Community
 - Fort McDowell Yavapai Nation
 - Gila River Indian Community
 - Salt River Pima-Maricopa Indian Community
 - Tohono O’odham Nation – San Lucy District



Existing Controls on Emissions Sources

- County VOC/NO_x RACT and permitting rules
- Area A emission control programs
 - Cleaner Burning Gasoline
 - Vehicle Emissions Inspections
 - Vapor recovery
 - Travel Reduction
 - Open burning restrictions

Strawman Option for Ozone Nonattainment Area

